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(43) **Pub. Date: Dec. 6, 2007**(54) **ANALOG INTERFEROMETRIC  
MODULATOR DEVICE WITH  
ELECTROSTATIC ACTUATION AND  
RELEASE**(52) **U.S. Cl. .... 359/291**(76) **Inventors:** **Manish Kothari**, Cupertino, CA  
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**G02B 26/00** (2006.01)(57) **ABSTRACT**

A microelectromechanical system (MEMS) device includes a first electrode, a second electrode electrically insulated from the first electrode, and a third electrode electrically insulated from the first electrode and the second electrode. The MEMS device also includes a support structure which separates the first electrode from the second electrode and a reflective element located and movable between a first position and a second position. The reflective element is in contact with a portion of the device when in the first position and is not in contact with the portion of the device when in the second position. An adhesive force is generated between the reflective element and the portion when the reflective element is in the first position. Voltages applied to the first electrode, the second electrode, and the third electrode at least partially reduce or counteract the adhesive force.

